

U.S. TRANSPORTATION

THE BACKBONE OF THE U.S. SUPPLY CHAIN

- Trucks move the majority of domestic freight in the U.S. by weight, **~65% of all freight is carried by trucks** ¹
- The U.S. trucking industry is composed of hundreds of thousands of motor carriers and firms, but around **97% of firms operate only 1-5 trucks**. As of early 2024, **577,000+ active motor carriers were registered** with the U.S. Department of Transportation (FMCSA) that operate at least one truck tractor ²
- Trucks handle about **73% of the nation's freight value** and **65% of total freight weight** in the U.S. ³



FOR COMPARISON



Rail: <10% of freight by tonnage (rail's share of ton-miles is higher at ~19% due to long hauls) ⁴



Ship: Only a few percent of domestic tonnage (e.g. in 2015, water carried ~5% of U.S. freight tonnage) ⁵



Pipeline: Significant for oil and gas; ~15–20% of tonnage (e.g. ~18% in 2015) ⁶



Air: <1% by weight (used mainly for high-value or urgent goods). By value, still minimal except in specific sectors (e.g. ~10% of electronics shipments by value involve air transport) ⁷

INFRASTRUCTURE AND TRUCK TRAFFIC

- Highway network:** The Interstate Highway System (about 47,000 miles long) is particularly critical for freight, enabling long-distance truck flows across the country. ⁸ The interstate highway system **carries ~25% of all vehicle travel**, including a large share of heavy truck traffic ⁹
- Volume of trucks on the road:** In 2023, **commercial trucks made up about 10.2% of all vehicle miles traveled on U.S. highways**. ¹⁰ On many key freight corridors, especially rural interstates, trucks are an even larger presence – in about 1/5 of the Interstate system, **trucks are 30%+ of all vehicles on the road** ¹¹



INDUSTRIES & COMMODITIES

Every sector of the economy relies on trucking to some degree; trucks are indispensable for local pick-up and delivery, and is the primary transport mode for many industries



IN 2018 ALONE, APPROXIMATELY 83% OF ALL U.S. AGRICULTURAL FREIGHT TONNAGE & 88% BY MARKET VALUE WAS MOVED BY TRUCK ¹⁴



IN 2017, THE U.S. MOVED ABOUT 231 MILLION TONS OF TEXTILES, ELECTRONICS, AND FURNITURE COMBINED ¹⁵



U.S. PHARMACEUTICAL PRODUCTS TOTALED ABOUT 22 MILLION TONS IN 2017; A RELATIVELY SMALL TONNAGE, BUT WORTH \$1 TRILLION+ ¹⁶

KEY ISSUES AND CHALLENGES IN U.S. TRUCKING

- Delayed freight payments force carriers to factor up to \$1 trillion in invoices yearly, losing >50% in net revenue and causing 50,000 transport company failures from 2022 to 2025, while driving up the cost of goods ¹²
- Trucks frequently travel empty on return legs or between loads, an estimated 20–35% of truck mileage is “empty miles” with no cargo ¹³
- Fraud in the trucking industry has led to billions in losses, with bad actors using legitimate FMCSA-issued Motor Carrier (MC) numbers to commit **double brokering** and **factoring fraud**

Double Brokering: Bad actors using legitimate, previously-owned MC numbers to pose as historied brokers, undercut shipping rates, secretly subcontract the job, and keep the profit difference without the customer's knowledge

Factoring Fraud: Occurs when bad actors use legitimate, previously-owned MC numbers to pose as intermediaries, pass receivables to carriers, and keep the payment after the carrier completes the job without getting paid

¹ Congressional Research Service, 2025 ² American Trucking Association, 2023 ³ Transportation Statistics Annual Report, 2024 ⁴ Congressional Research Service, 2025 ⁵ U.S. Department of Transportation, 2016 ⁶ U.S. Department of Transportation, 2016 ⁷ U.S. Department of Transportation, Bureau of Transportation Statistics (BTS) ⁸ U.S. Department of Transportation, Federal Highway Administration (FHWA) ⁹ U.S. Department of Transportation, Federal Highway Administration (FHWA), 2022 ¹⁰ U.S. Department of Transportation, Bureau of Transportation Statistics (BTS) ¹¹ U.S. Department of Transportation, 2006 ¹² Page 263: GBBC's 101 Real-World Blockchain Use Cases Handbook ¹³ Uber Freight, 2023 ¹⁴ U.S. Department of Homeland Security, 2021 ¹⁵ ¹⁶ U.S. Department of Transportation, Bureau of Transportation Statistics (BTS)